

BASE COUNT	399	a	414	c	379	g	371	t	
ORIGIN									
 Match	55.2%	Score	1046.8	DB	8	Length	1563;		
 St Local	Similarity	80.28;	Pred.	No.	1.8e-200;				
 Matches	302;	Indels	9;	Gaps	2;				
 Matches	1257;	Conservative							
QY	144	AATTTGGTGGAACTTGCAATTACTCGTTGGTGTATGCCCTCTTCATACACCGCGGCC	203	Db	1	ATTTGCTGGAACCTTGCACTTGCGTTGTTGTTAGCTTGTGACTTGCTCC	60		
QY	204	ACACTAAGTGAATAATCAGTCCTCCAAACCTCTCCAAAGTCCAACCCC	263	Db	61	ACACCAAGCGAAATCAAACCGACTTCGCCAACCTCCAAAGCCAAAGCT	120		
QY	264	CGTGCCCCATTTGGGACCTTCACTTACACAAACCTTCTTCACATCCCTC	323	Db	121	CGTTTCCCTCATGGCACCTTCACCTCTTAAAGATAACCTTCACATGCACTC	180		
QY	324	ATCGACCTTAAGCAACACGTATGGCCGGTTACTCCCTCTACTCGGTTCATGCCAAC	383	Db	181	ATCGATCTTCACCAAAAGATGGCCCTTATTCTCTCCGGTCCAGGCCAAC	240		
QY	384	GTGTAGCCCTCCACCCCTGAAACTTTCAAAACTCAGGGCTCTTCC	443	Db	241	GTGGTGGCTCCACCCCTSAGTTCTACGCTTCCCTCCAAAGCCAGGAACTCTC	300		
QY	444	TTCACACAGGTCAACCTTGCCATTAGGGCTTACCTACGAGACCTCTG	503	Db	301	TTCAGCACAGGTCCAACCTCTGGCCATTAGGGCTTACCTACGAGACCTCTG	360		
QY	504	ATGGTCCCTTGGCTCTACTGGAGCTCATAGGAAGCTCATAGAACGCTCTC	563	Db	361	ATGGTCCATGGGCTACTGGAGCTCATAGGAAGCTCATAGAACGCTCTC	420		
QY	564	AATGCCACAACTGTGAAAGTGTAGGGCTTTAAGGAGCCAAAATCGAAAGT	623	Db	421	AACGCCACACCGTCACAGGCTTGGGCTTGGACCTCAAGATCGAACCTCT	480		
QY	624	AGGGATGGCCACAGAGTGTAGCTCAGTCCACCTTANTCAGCGAGCTTCTC	683	Db	481	AGGGTATGGCCACAGGCCAGGGCAGGCCCCAGAGCCCTGACGTCACCGCTTC	540		
QY	684	AATGGGACCAACAGACCATCTCGGAGATGATGCTGGGGAACTAGGGAC	743	Db	541	AAATGCCACAGACCATCTCGGAGATGATGCTGGGGAACTAGGGAC	600		
QY	744	ATAGCACGTGAGTGTGCTTAAGATCTTGGGGATGATAGTCTACCGAC	803	Db	601	ATCGCTGCGAGTGTGCTTAAGATCTACGCTGACATCTCGGCT	660		
QY	804	TGAGAAACTCAAGTTGGCAATACAGAGAGATGACGATATACAGGT	863	Db	661	TGAGATATCAGGTGGAAAGTGTGAGACATCTGAAAGTGTGCT	720		
QY	864	GACCCCGTCATGAGGGTCATCAAGAAAAGACGGAGATTAGGAGAGGAG	923	Db					
RESULT									
 AF	135484	LOCUS	AF135484	DEFINITION	Glycine max cytochrome	1722 bp	mRNA	PLN 02-AUG-1999	
 AF	135484	ORGANISM	AF135484	VERSION	Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;				
 AF	135484	KEYWORDS	AF135484.1	SOURCE	Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;				
 AF	135484	KEYWORDS		KEYWORDS	Rosidae; eurosids I; Fabales; Fabaceae; Papilioideae; Phaseoleae;				

Glycine.				
1 (bases 1 to 1722)				
AUTHORS Steele, C.L., Gitzzen, M., Outob, D. and Dixon, R.A.				
TITLE Molecular characterization of the enzyme catalyzing the aryl migration reaction of isoflavanoid biosynthesis in soybean				
JOURNAL Arch. Biochem. Biophys. 367 (1), 146-150 (1999)				
MEDLINE 99306846				
PUBMED 10375412				
REFERENCE 2 (bases 1 to 1722)				
AUTHORS Steele, C.L., Gitzzen, M., Outob, D. and Dixon, R.A.				
TITLE Direct Submission				
JOURNAL Submitted (17-MAR-1999) Plant Biology, Noble Foundation, Noble Pkwy, Ardmore, OK 73402, USA				
FEATURES Location/Qualifiers 1..1722				
organism="Glycine max"				
/db_xref="taxon:3847"				
gene "CYP93C1v2"				
CDS 36..1601				
/gene="CYP93C1v2"				
/function="2'-hydroxyisoflavanone synthase"				
/note="The functional expression of this cDNA demonstrated 2-hydroxyisoflavanone synthase activity"				
/codon_start=1				
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/protein_id="AAID8929_1"				
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/note="difference compared to GenBank Accession Number AF022462; causes change of T to I (aa 156)"				
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misc_difference 918				
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/note="9 bp insertion compared to GenBank Accession Number AF022462; causes change of E to K (aa 295)"				
/replace="C"				
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Best Local Similarity 79.6%	Pred. No. 5.7e-289;	Lengt 1722;		
Matches 1259; Conservative 0; Mismatches 314; Indels 9; Gaps 2;				
Query 138 AACACCATGTTGGGAGAACATTGCAATTACTCTGTGGGAGATGCCCTGTCATCACCTG 197				
Db 30 AACAGATGTTGCTGAACCTGCACTTGCGTTATGGTTTCTGACTCTGACTCTG 89				
Query 198 CGTCCCCACCTAAGTGCACAAATCAAAGTCCTGCACTCCAAACCTCAGTCACCA 257				
Db 90 CGTCCCCACACCCACTGCAAAATCAAACACTGCCATCTCCAAACCCACAAACCC 149				
Query 1338 GTTGGGGCTGGAAAGACCCCCAAATACTGGGAGATGCCCTGTCATCACCTAC 3197				

Db	942	CTGTGTTGACCTTTCGGAGGAACAGACTCCAGGGTGGAAACAGATGGCC 1001	FEATURES	80402, Wilmington, DE 19880-0402, USA
QY	1098	CTGTCAGACTCATCAACAACCCAGGGTTCAAAAGGCACAGAGGGAGATCGATGCC 1157	Location/Qualifiers	1..1824
Db	1002	TTCGAGAACATCAACAATCTTAAGGTGTTGAAAGGTGAGGTCTACAGT 1061	/organism="Glycine max"	
QY	1158	GTCGGGGAAAAGACAGACTCGTGACCAAGGGCAGATTCAGACCTCCATTAGA 1217	/db_xref="Taxon:3847"	
Db	1062	GTCGGGGAAAAGACAGACTCGTGACCAAGGGCAGATTCAGACCTCCATTAGA 1121	/gene="ifs2"	
QY	1218	TCACTCGTGAAGGAGACGTTCCGGACCAACTACCCCTGGCAAAAGAAAGTC 1277	/gene="ifs2"	
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QY	1278	GTGAGGAGTGTAGGTGAGCTGGTATGTGATCCAGGGAGCATGTATCCTTCAAT 1337	/product="isoflavone synthase 2"	
Db	1182	ACAAAGAGTGTAGATAATGGATAATGGATAATGGATAATGGATAATGGATAAT 1241	/protein_id="Af34520_1"	
QY	1338	GTTCGGCGTCGGAAAGGACCCAAATACTGGACAGGCCACTGAGTTGGTCCCGAA 1397	/db_xref="GI:6979522"	
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Db	1302	AGGTCTTCTAGAGCACGGGCTCTGTATCTAGGGACAAAT 1361	TREQSARPLRTWDSAMPPGPWPKLMLPNTISMMLGEAEIRDIAREVKIGEYSUTDFI	
QY	1455	TTCCAACACTCTCGTTGGCTTGGGATGGAGGAGATGGCC 1514	WPLKLUKGVEKRIDDILNKEDPVYERVKKRRREVREKGNGEVEVGVSCEVLDI	
Db	1362	TTCAACTCTCCATTGGGTGTGGGGAGATGGCC 1421	LEFADEETIMEKITRDLEGVLVDFESAGTATTEAWAELINNPVKELEKAV	
QY	1515	GCGGAATGGCACACACTCTGGTCAGTTATCGAGCTAGGGC 1574	YVNVYQGRDPKYDRPSFRPEPEFLCTAEAEGBPLDRLGQHOLLGSGSRMCP	
Db	1422	TGGGAATGGCACACACTCTGGTCAGTTATCGAGCTAGGGT 1481	GVNLYQGMATLQLQCFDQLVQPGQGILKGDAVMSMEERAGLTVPRAHSLVCP	
QY	1575	CCAGGAAAGATGGAACATGCGCAAGGTAGCTGGTCAGTTATCGAGCTAGGGC 1634	PLARIGVASKILLS"	
Db	1482	CCCAAGAACAGATATGCGCAACCTCTGGTCAGTTATCGAGCTAGGGC 1541	BASE COUNT	497
QY	1635	CTCACGGTTCAGGGCACATACCTCATCTGGTCAGTTATCGAGCTAGGGC 1694	ORIGIN	a 448 c 416 g 463 t
Db	1542	CTCACTGTTCAGGGCACATACCTGTGGTACGCCAAGTTAGATGGAGAGGGT 1601	Query Match	54.7%
QY	1695	CCCAAACCTTTCGTGTTAAA 1716	Best Local Similarity	79.4%
Db	1602	TCTAAACCTTCTTAAATAA 1623	Matches	1256;
		Conservative	0;	
		Indels	317;	
		Gaps	2;	
QY	AF195799	AF195799	PLN 16-FEB-2000	
DEFINITION		1824 bp	mRNA	
ACCESSION		synthase 2	linear	
VERSION	AF195799	(ifss2)	mRNA, complete cds.	
KEYWORDS				
SOURCE				
ORGANISM				
RESULT 9				
REF ID				
DEFINITION				
ACCESSION	AF195799			
VERSION	AF195799			
KEYWORDS				
SOURCE				
ORGANISM				
REFERENCE				
AUTHORS				
JOURNAL				
MEDLINE				
PUBMED				
REFERENCE				
AUTHORS	Jung, W., Yu, O., Lau, S.M., O'Keefe, D.P., Odell, J., Fader, G. and McGonigle, B.			
TITLE	Identification and expression of isoflavone synthase, the key enzyme for biosynthesis of isoflavones in legumes			
JOURNAL	Nat. Biotechnol. 18 (2), 208-212 (2000)			
MEDLINE	10657130			
PUBMED	2 (bases 1 to 1824)			
REFERENCE				
AUTHORS	Jung, W., Yu, O., Odell, J., Fader, G. and McGonigle, B.			
TITLE	Direct Submission			
JOURNAL	Submitted (18-OCT-1999) Nutrition and Health, DuPont, P.O. Box			